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ABSTRACT

In an effort to assess the effectiveness of peer tutoring in reducing the frequency of disruptive behavior among students, a second grade class was taught with two alternating methods, direct instruction and peer tutoring. Nine types of disruptive behaviors were recorded during each of the two instructional treatments: out-of-seat behavior, talking, stalling, physical aggression, task incompletion, ignoring of directions, negative attitude, arguing, and disruptive noises. Over a 16-day treatment period, there were fewer disruptive behavior patterns in the peer tutoring group than in the direct instruction group. Stalling and negative attitudes were more frequent in the direct instruction group, while arguing was more frequent in the peer tutoring group. (RH)

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The Relationship between Peer Tutoring and Disruptive Behavior of Second Grade Students

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Abstract

Student achievement should not be the only aspect considered in the selection of instructional strategies for the elementary classroom. Effectiveness of instruction should also take into account negative variables, such as disruptive behavior, which may be associated with the instructional strategy in question. In this study, peer tutoring was evaluated as an effective instructional strategy with regard to its relationship to disruptive behavior. A second grade class was taught with two alternating methods, direct instruction and peer tutoring. Nine types of disruptive behaviors were recorded as they occurred during each of the two instructional treatments. Over a sixteen day treatment period, disruptive behavior patterns were significantly lower in the peer tutoring group in three of the nine areas, as well as total disruptive behavior scores.

The Relationship between Peer Tutoring and Disruptive Behavior of Second Grade Students

With the current increase in the mainstreaming of special education students and children whose native language is not English, more demands are being placed on the regular classroom teacher. Due to these increased demands, efficient and effective instructional methods have become more of a concern for the elementary classroom teacher. Several studies have investigated relationships between instructional methods and variables other than achievement, such as social interaction, motivation, and student behavior (Sharan, 1980; Slavin, 1981, 1988). The implementation of instructional methods that reduce or eliminate discipline problems would be an attractive method of increasing teacher effectiveness within the classroom.

Discipline problems often exist because school has represented a place of competition to the students. Children are often encouraged to strive to do better than their peers rather than to strive for the joy of learning in and of itself (Johnson & Johnson, 1985). As the number of mainstreamed students placed into the regular classroom increases, such competition sets up an atmosphere that often promotes disruptive behavior. Low performing students may perceive a competitive classroom as a hostile environment that serves only to lower self-esteem (Slavin, 1981). These students may feel that it is useless to even try, if with all probability, they will fail. Without any positive reinforcement to boost their self-esteem, many turn to forms of negative behavior as their only means of self satisfaction. Such disruptive behavior serves as a rebellion against an environment that has no usefulness to the student. Not all occurrences of disruptive behavior are made by low performers. Even high achievers can view a competitive classroom in a

negative manner. Such students assume that they will be at the top of the class with little or no effort, and the need for peer acceptance often causes them to lose their desire to remain the so called "perfect" student (Slavin, 1981).

Cooperative learning is one currently popular instructional method that could perhaps reduce disruptive student behavior. It is a powerful instructional method that enables students to learn by teaching, but due to its non-traditional approach, it is often overlooked by teachers (Johnson & Johnson, 1985). An important aspect of cooperative learning is the use of peer tutoring. Children are distributed into pairs or small heterogeneous groups, and then activities are planned for teaching and learning to be student-guided, rather than teacher-directed as in the traditional approach (Behounek, Rosenbaum, Brown, & Burcalow, 1988).

Studies investigating the benefits of peer tutoring have found that students do set and attain higher achievement goals, particularly minority and low-achiever groups (Parker, 1984). Bullard (1983) found that "slow learners" in mathematics were able to significantly increase both their arithmetic facts knowledge and their arithmetic skills through the use of peer tutoring over a four-week period. Students also reported increased confidence in their mathematics ability, thus indicating a boost in self-esteem.

Researchers have also found an increase in motivation when students use peer tutoring. Students of all ages are more motivated to learn when involved with active participation in the presentation of information. They learn concepts better because of higher levels of interest in the subject matter (Benware & Deci, 1984). According to Slavin (1981), the increase in achievement goals and motivation stems from the improved interaction between students of different cultures and abilities, especially between

mainstreamed and regular classroom students. By interacting in a successful bond, the self-esteem of the children involved seems to improve. Students feel more capable of initiating their own learning, and this builds self-confidence. With the teacher less involved in the actual teaching, students feel that greater responsibility is given to them (Greenfield & McNeil, 1987).

Children taught in a cooperative instructional manner are likely to be more cooperative in behavior and more productive. Some researchers feel that there is less disruptive behavior exhibited by children using peer tutoring than children being instructed through more traditional teaching methods (Herts-Lazarowitz, Sharan, and Steinberg, 1980) . The stress associated with competition has been eliminated. Children can gain positive reinforcement through helping their peers to learn. The benefits are evident for all types of learners, from behavior disordered to the top achievers in the classroom. In the behaviorally disordered student, inappropriate behavior tends to decrease and social interaction skills tend to improve (Bullard, 1983).

The purpose of this study was to compare the frequency of disruptive behavior occurrence in two classroom settings, traditional direct instruction and peer tutoring. A single second grade class was used, with the instructional method being alternated between the two approaches at specific intervals of instruction over an extended period of time. It was hypothesized that during the use of the more cooperative learning method, students would be relieved of the stress associated with a competitive atmosphere and would therefore exhibit less disruptive behavior. There was, however, uncertainty as to which specific disruptive behavior variables were suspected to be related to peer tutoring, and if all such variables would be relateded in the same direction.

Method

Subjects

Subjects for this study were second grade students in a self-contained classroom in an elementary school in southern New Mexico. Socioeconomic status of the surrounding neighborhood was lower-middle-class, and the abilities of the students ranged from remedial to high-achievers. Sixteen students were included in the study, with an equal number of males and females whose ages ranged from six and one-half to nine years. The cultural diversity of the group was representative of the local area, with 50% Anglo, 44% Hispanic, and 6% American Indian.

Instruments

The Disruptive Behavior Checklist was developed, through the consultation of teachers of behaviorally disordered students within the local school system. The checklist included nine specific areas of disruption: out of seat, talking, stalling, physical aggression, incompletion of task, not following directions, negative attitude, arguing, and disruptive noises.

Design

A quasi-experimental equivalent time-samples design was used, in which a single group was given two different instructional methods alternately over an extended period of time (Campbell & Stanley, 1963). Scheduling was alternated between two daily sessions. One session was during science lessons, with the peer tutoring procedure being administered. The other session was during social studies lessons, with a traditional seatwork instructional method being implemented. Teaching method was the independent variable, and disruptive behavior checklist score was the

dependent variable. A statistical comparison of the means of the two instructional method groups was then performed.

Procedure

To minimize threats of validity due to differential treatment, the same teacher was used to teach the entire group in both instructional methods. Science and social studies served as the two sessions to receive the two different instructional methods. Both were taught in the afternoon within fifteen minutes of one another. They were given equal time, and the order in which they were taught was alternated to balance the design. Materials and activities were similar in construction, with art and creative writing integrated into both areas.

Prior to the study, the entire class participated in a peer tutoring training program administered by the teacher. This was to familiarize them with the instructional methods to be used in the peer tutoring portion of the study. Actual recording and comparing of occurrences of disruptive behavior exhibited during the assigned task completion time did not begin until the group was familiar with the instructional methods used in each content area. Tutoring groups consisted of two children. The paired groups were designed to be as heterogeneous as possible by combining children of different sex, culture, and ability.

One treatment was the instruction of the group in the science content area using peer tutoring. The other treatment consisted of instruction during social studies sessions through teacher directed large-group instruction and individualized learning, as is generally referred to as the traditional method. At no time during the social studies sessions were the students instructed using peer tutoring. During these sessions of alternating instructional

approaches, disruptive behavior occurrences were recorded on a daily basis for a period of sixteen days. A separate checklist was kept for each content area. The process was continued over a period of sixteen school days.

Results

A paired t-test was used to compare the mean disruptive behavior scores of the two instructional method groups. This was done on each of the nine subscales, as well as on the total scores. A significance level of $p < .05$ was selected for all comparisons. A two-tailed test was used, due to lack of strong suspicion as to the probable direction of relationship of many of the independent variables. As revealed in Table 1, there was a significant difference in the frequency of disruptive behavior occurrences in three of the nine behavior subscales, as well as for the total scores. There were more occurrences of both stalling and negative attitude in the traditional instruction group. However, there was a significantly higher occurrence of arguing in the peer tutoring group. Although none of the other six behavior subscales showed significance at the $p < .05$ level, the combined scores for total occurrences of disruptive behavior of the two instructional methods were significantly different. The peer tutoring method showed a much lower over all occurrence of disruptive behavior. This difference can be compared on a daily basis in Figure 1, which reveals a fairly consistent non-disruption edge for the peer tutoring method.

Discussion

This particular study was conducted strictly as action research, for the purposes of selecting the most advantageous instructional style for a given classroom and teacher. Any attempt to generalize to a larger population

would be premature. It was concluded, however, that in this particular study children did indeed exhibit less disruptive behavior when peer tutoring was used. The less competitive atmosphere seemed to reduce the stress involved in learning and therefore improved the time spent on task completion. Less time appeared to be spent attempting to gain attention through inappropriate behavior during peer tutoring, with students being rewarded by the positive attitude that accrues from controlling one's own learning. The higher occurrence of arguments in the peer tutoring group could be attributed to the increased discussion necessary for the process to be effective. The instructor found it to be a small price to pay for the overall reduction in disruptions. Perhaps development in instructional skills that monitor these interactions could be helpful in keeping discussions on a positive note.

It does appear that the success of this particular peer tutoring program was dependent upon the successful peer training program that was completed prior to the study. Perhaps more emphasis needs to be placed on the development of training programs that enable children to work together. Successful peer tutoring programs must have effective training and accountability, because the effectiveness of the teacher's management of the groups during classroom work greatly influences the benefits of the process (Gerleman, 1987; Greenfield & McNeil, 1987; Hendrickson, 1981). Proper implementation of peer tutoring in a school system could perhaps best be achieved through the inservice training of teachers. These trainees could then prepare their own students to use the peer tutoring instructional method effectively.

Although the research indicates that peer tutoring can be of benefit for improved achievement, motivation, and social interaction, more classroom research must be conducted before all of the questions can be answered as to

the reasons for its effectiveness. It appears from this study that more research concerning a relationship between peer tutoring and the reduction of disruptive behavior could be useful. Studies that seek possible relationships between cooperative learning methods and specific positive student behaviors are also warranted. Such studies could lead to an improvement in the quality of classroom learning. Although not all questions have been answered at this point, it appears that educators should be encouraged to try peer tutoring as an instructional alternative for possible student improvement in several areas.

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Table 1
Comparison of Subscale Means by Instructional Method

	Peer Tutoring		Traditional			
Subscale Variable	M	D	M	D	*t*	$p < \|t\|$
Out of Seat	.375	.718	1.000	1.211	-1.775	.086
Talking	.438	.813	.938	1.237	-1.351	.187
Stalling	.750	.683	2.000	1.460	-3.100	.004 *
Physical Aggression	.125	.500	.063	.250	-.447	.658
Task Incompletion	.063	.250	.500	.894	-1.884	.069
Ignoring Directions	1.125	1.204	1.500	1.549	-.765	.450
Negative Attitude	.625	.957	1.880	1.310	-3.081	.004 *
Arguing	.936	.182	0.000	0.000	-3.174	.004 *
Disruptive Noises	.438	.182	.375	.180	-.245	.809
Total	4.875	2.500	8.250	4.139	-2.791	.009

* $p < .05$

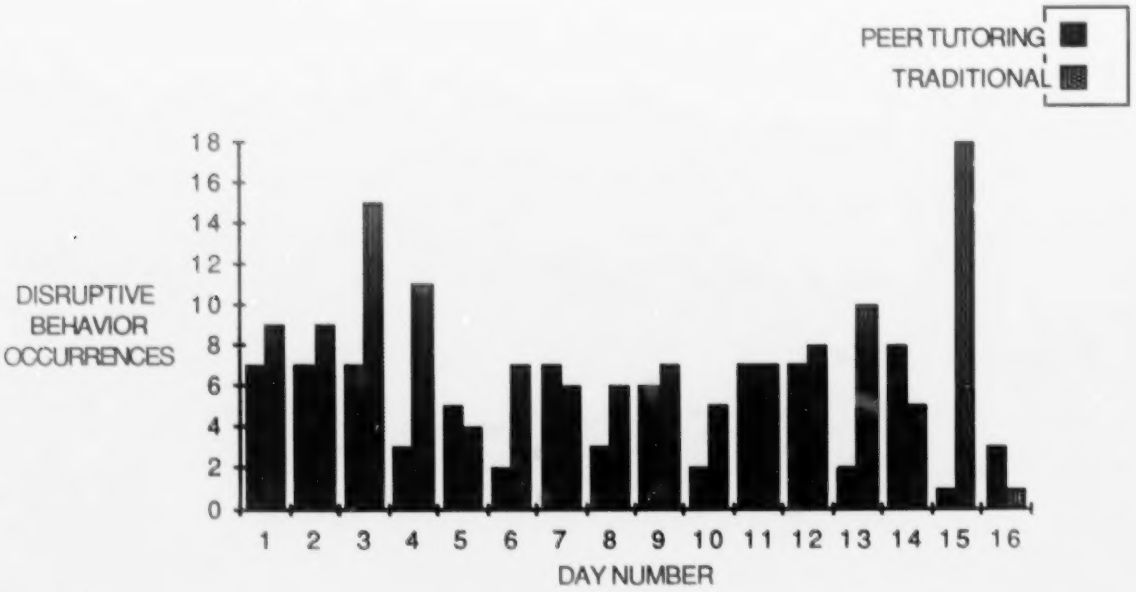

Figure 1
Daily Occurrences of Disruptive Behavior